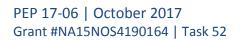
Hampton Roads Planning District Commission

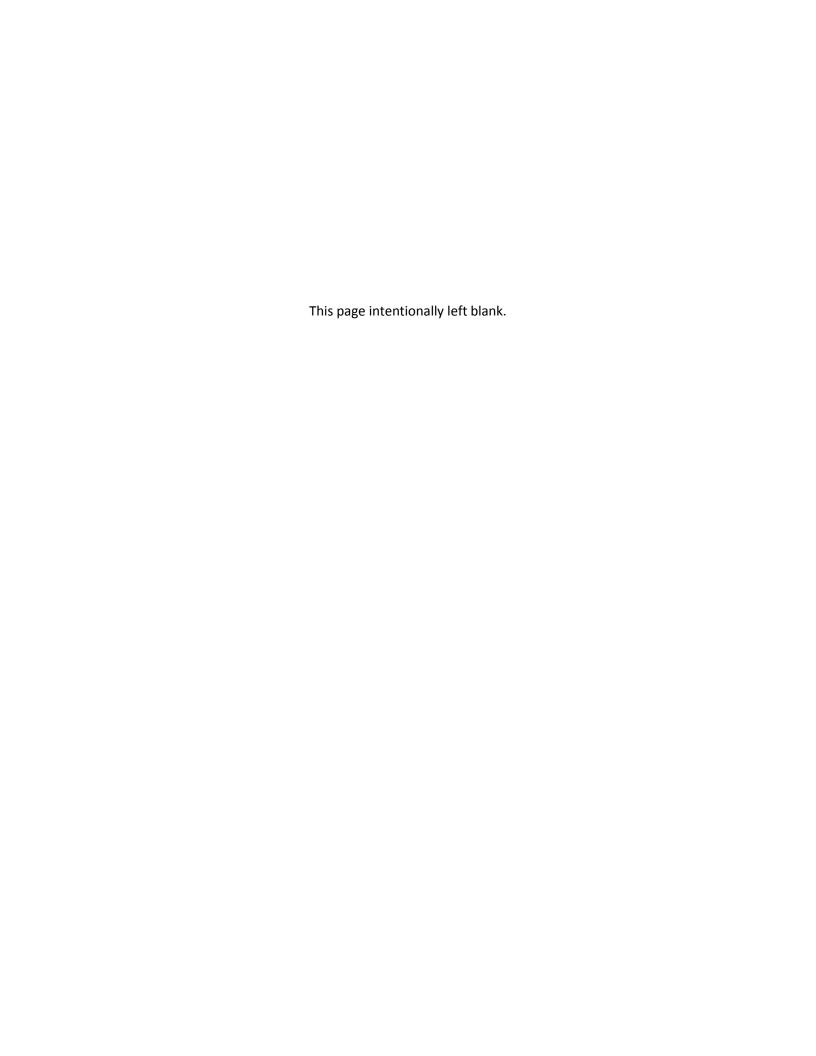
Lavalette Avenue Canoe/Kayak Launch and Fishing Dock Final Report











LAVALETTE AVENUE CANOE/KAYAK LAUNCH AND FISHING DOCK FINAL REPORT

This report was funded, in part, by the Virginia Coastal Zone Management Program at the Virginia Department of Environmental Quality through Grant #NA15NOS4190164 of the U.S. Department of Commerce, National Oceanic and Atmospheric Administration, under the Coastal Zone Management Action of 1972, as amended.

The views expressed herein are those of the authors and do not necessarily reflect the views of the U.S. Department of Commerce, NOAA, or any of its subagencies.

Federal financial aid for this project amounted to \$19,400, approximately 16% of the total cost.

Preparation of this report was included in the HRPDC Unified Planning Work Program for FY2016-2017, approved by the Hampton Roads Planning District Commission at its Executive Committee Meeting on June 16, 2016.

Prepared by the staff of the Hampton Roads Planning District Commission



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ABSTRACT

This report documents the construction and installation of a canoe/kayak launch and associated shoreline restoration work in Norfolk, Virginia. The site of the project was near the Virginia Zoo at the end of Lavalette Avenue where it ends at the Lafayette River. This project was a joint effort of the Hampton Roads Planning District Commission and the City of Norfolk. The launch was installed in June 2017.

ACKNOWLEDGEMENTS

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This report was prepared by the Hampton Roads Planning District Commission (HRPDC) staff in cooperation with the member localities. Preparation of this report was included in the HRPDC Unified Planning Work Program for Fiscal Year 2016-17, approved by the Commission at its Executive Committee Meeting on June 16, 2016.



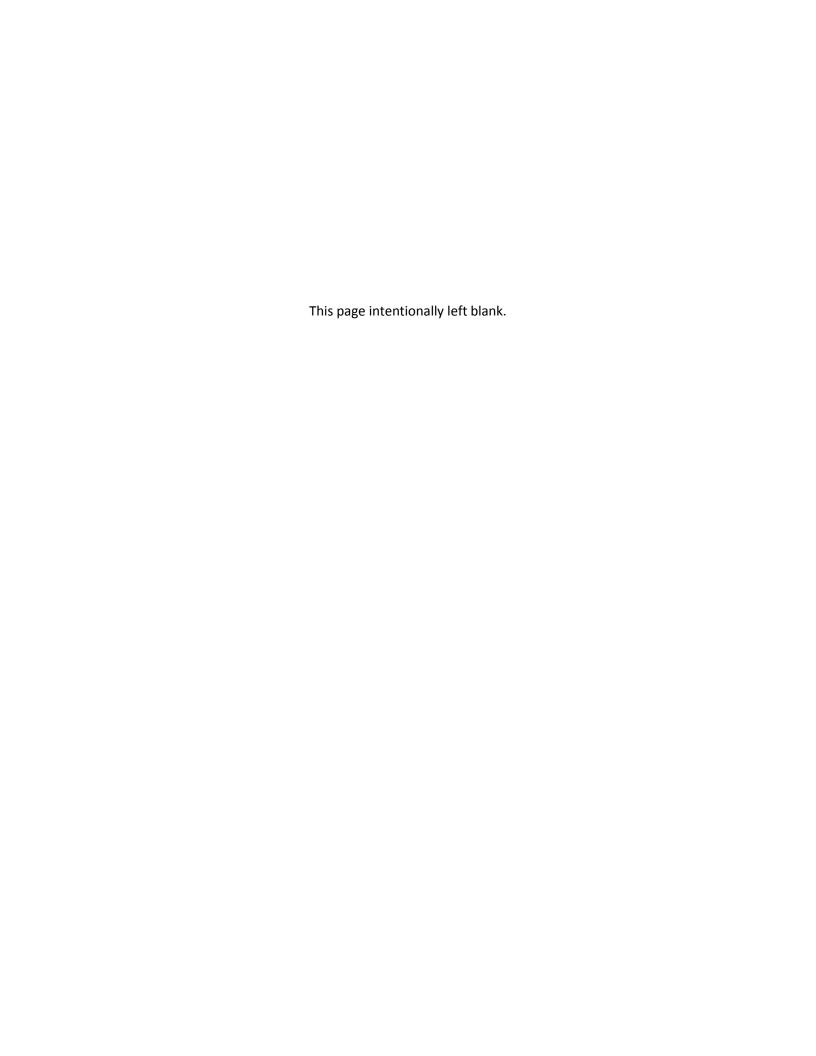


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Introduction

Norfolk, Virginia, is one of the largest cities in the state, with a population of approximately 247,000 and a total land area of 54.9 square miles. The city is nearly surrounded by water, with the Chesapeake Bay to the north, the Elizabeth River to the west and south, and the City of Virginia Beach to the east. The Lafayette River, a tributary of the Elizabeth River, reaches nearly halfway into the city's interior. These waterways account for the majority of the city's over 140 miles of shoreline.

The new Lavalette Avenue canoe/kayak launch and fishing dock is located in the southern half of the city at the end of Lavalette Avenue (see Figure 1). Lavalette Avenue is a residential street in Norfolk, Virginia, located directly north of Lafayette Park and the Virginia Zoological Park. The road extends from Granby Street/US-460 eastward and ends at the Lafayette River. In addition to the park and zoo, the street is located near several historic Norfolk neighborhoods, including Colonial Place, Park Place, and Riverview, each of which was first established in the late 1890s and early 1900s.

Prior to this project, the project site included an abandoned powerboat ramp and associated parking area. The site was also used for shoreline fishing. Figures 2-5 document existing conditions on the site prior to construction.

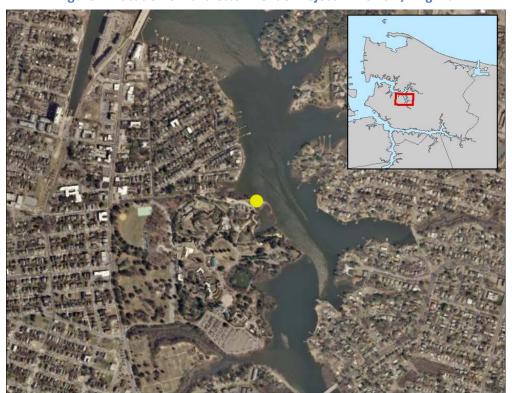


Figure 1: Location of Lavalette Avenue Project in Norfolk, Virginia

Figure 2: Lavalette Avenue Site, Pre-Construction

Credit: Shawn Krawetzki/Norfolk



Figure 3: Shoreline Conditions at Lavalette Avenue Site, Pre-Construction

Credit: Shawn Krawetzki/Norfolk

Figure 4. Shoreline Conditions at Lavalette Site, Pre-Construction

Figure 4: Shoreline Conditions at Lavalette Site, Pre-Construction

Credit: Shawn Krawetzki/Norfolk



Figure 5: Parking Area at Lavalette Avenue Site, Pre-Construction

Credit: Shawn Krawetzki/Norfolk

Project Beneficiaries

Approximately 50 residents live within one quarter-mile of the project site and approximately 5,500 residents live within one mile of the project site. In addition, approximately 62,300 residents live within a ten-minute drive of the new launch. According to the Hampton Roads Transportation Planning Organization, 7,678 people lived in the neighborhoods within a half-mile of the project site (and on the same side of the Lafayette River) in 2009. By 2040, that population is expected to increase to 7,785, an increase of approximately 1.4%. ¹

Project Context

In 2015, the Hampton Roads Planning District Commission (HRPDC) applied for and obtained funding through the Virginia Coastal Zone Management (CZM) Program to work with the City of Norfolk on the design and construction of the Lavalette Avenue Canoe/Kayak Launch and Fishing Dock. The project included the following components:

- Planning, design, acquisition, and construction of a gangway, floating dock (for fishing and crabbing), and canoe/kayak launch
- Demolition of the existing dock
- Restoration of upland vegetation along the nearby shoreline
- Development and installation of interpretive signage

This project is part of a broader effort by Norfolk to improve public access to its waterways for recreational users. Water access is one of seven components identified in the city's Recreation, Parks, and Open Space Master Plan, adopted in June 2012. This plan recognizes the importance that waterways and water access have for environmental quality and for residents' quality of life. The plan describes the lack of access points to the city's rivers, and it identifies improving access as a significant opportunity. Water access was identified as one of the top four parks and recreation needs in the city. The analysis of Lafayette Park specifically mentions a new canoe/kayak launch as an opportunity for improvement. One of the recommendations from the plan is to develop and advertise a Historic Lafayette Paddling Trail, which would connect half a dozen historic properties along the Lafayette River. An alternative recommendation is to develop a Lafayette River Trail, which would connect, once completed, fourteen individual access points, including twelve access sites, one hub, and one lookout. At the time of adoption, only seven of these locations were already constructed; another three were not official recreational locations. Converting the Lafayette Park Boat Ramp from a powerboat ramp to a canoe/kayak launch was identified as a priority improvement. In addition to the master plan, providing and improving public access to the water was a recommendation of the city's most recent general plan, plaNorfolk2030, which was adopted in 2013.³

¹ Hampton Roads Transportation Planning Organization, Hampton Roads 2040 Socioeconomic Forecast and TAZ Allocation, October 2013

² City of Norfolk, *City of Norfolk Recreation, Parks and Open Space Master Plan*, June 2012 https://www.norfolk.gov/index.aspx?NID=1868

³ City of Norfolk, plaNorfolk2030, March 2013 https://www.norfolk.gov/index.aspx?nid=1376

Project Description

The completed Lavalette Avenue canoe and kayak launch fulfills the city's goal of installing a multipurpose water access point on the Lafayette River. The project provides access to the water for viewing, fishing, crabbing, canoeing, and kayaking. By installing the new launch, the project improves the aesthetics of the site and neighborhood and helps protect the city's investments in the adjacent shoreline restoration projects (shoreline restoration is a major component of the city's water quality improvement strategy). Previously, fishermen would trample on any vegetation to gain access to the water. With the new facility, they can fish directly from the launch. The new launch is also ADAcompliant, which will broaden access to the river to a larger portion of the city's and region's population. In addition to installing the actual launch, the project also helped restore the nearby shorelines and improve road access to the site. This project will provide access for the neighborhood and city and other communities in Hampton Roads. Figures 6 - 11 show the completed project.



Figure 6: View of the New Canoe/Kayak Landing and Launch from the Shore

Credit: Ben McFarlane/HRPDC

Figure 7. View of the Launch Hoff the Gangway

Figure 7: View of the Launch from the Gangway

Credit: Ben Kane/Norfolk



Figure 8: View of the Launch Area from the Landing

Credit: Ben McFarlane/HRPDC

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Figure 9: View of Restored Buffer and Living Shoreline to the South of the Launch

Credit: Ben McFarlane/HRPDC

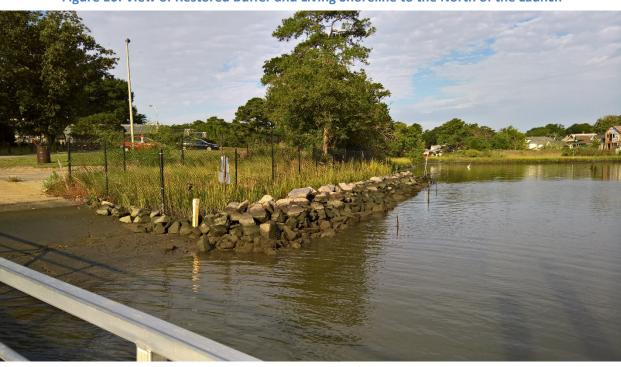


Figure 10: View of Restored Buffer and Living Shoreline to the North of the Launch

Credit: Ben McFarlane/HRPDC

The fourth deliverable for this project was intended to be a combination of upland shoreline restoration and development and installation of interpretive signage. Significant progress was made on the planting of the buffer was completed in February 2017. Additional work on the marsh to repair impacts from fishermen trampling on vegetation was completed in July 2017 after the installation of the launch was completed. Additional work, including planting other areas of the buffer and wetland, will be accomplished through a separate grant later in 2017 and in 2018. Although the shoreline restoration components were completed, the signage was not finalized and installed. The primary cause was the inability of the project partners to develop sign content that would be both acceptable and effective as a community education tool. As a result, this deliverable was modified, and the grant reduced by an appropriate amount to reflect the reduced product. However, the HRPDC staff intends to continue to work with Norfolk staff from the Recreation, Parks, and Open Space Department and the Public Works Department on material for signs at this site and at others throughout the city. Figure 12 shows the most recent draft of the proposed sign for the project.



Figure 11: Temporary Signage on Launch

Credit: Ben Kane/Norfolk

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Figure 12: Permanent Signage on Launch

Credit: Ben Kane/Norfolk

Figure 13: Proposed Signage for Lavalette Avenue Canoe/Kayak Launch and Fishing Dock

Welcome to the **Lafayette River** Norfolk's Gateway to the Chesapeake Bay

Elizabeth River Watershed

Plants of the Lafayette River Watershed

a. Southern wax myrtle (Myrica cerifera) is an evergreen shrub found growing

above frequent inundation areas along shorelines and sand dunes. The plant's fruit and seeds are important food sources for native birds, and its thick evergreen habit provides shelter for many species.

b. Saltmeadow cordgrass (Spartina patens) is one of the most common marsh plants along the entire Adhantic coastline, goving in the high marsh of tidal marsh plants along the entire Adhantic considera, goving in the hay-like grass is important as a sources of food, shelter, erosion control, filtration and wave dissipation in saltmarshes, forming extensive fields in many settings.

c. Groundsel bush (Baccharis halimifolia) is a large shrub commonly found above the high tide line on tidal shoreline and in freshwater wetlands. The shrub is a valuable confused with Marsh-elder (Iva frutescens) are popular for butterflies and other and the large white bunches of flow source of shelter, buffers shorelines, which has a similar growth form, but is found immediately along the high tide line. pollinators. Groundsel bush is often

above frequent tidal inundation and around freshwater wetlands across much of the Eastern United States. The plant may grow shades of red to white. Rose-mallow is a popular garden plant moscheutos) is a flowering plant found near salt marshes to 10 feet tall and the large flowers naturally occur in many Swamp rose-mallow (Hibiscus with many varieties available. ö

tidal inundation and acts as a buffer against waves for the shoreline behind. It provides habitat for mussels, snails, wading birds, and many other marsh inhabitants. The grass may also act to trap sediment, slowly raising the elevation of the marsh over time to e. Smooth cordgrass (Spartina alterniflora) is a thick grass which grows in the intertidal zones of coastal marshes up to the high water mark. The grass can handle significant







ent Act of 1972, as amended ital Quality through Grant #NA15NOS41090164 This project, Task 52, was funded, in part, by the Virginia Coastal Zone Managei

The Lafayette River is a tidal tributary of the Elizabeth River,

stretching from Ballentine and Norview in the eastern half of the city to Larchmont, Lochhaven, and the Port of Virginia in the west. Along the way, it passes by or through over a dozen individual neighborhoods, providing waterfront access and beautiful views to many Norfolk residents and visitors.

The Lafayette River's watershed is the largest in Norfolk, covering nearly 14 square miles - almost one-third of the city. Located entirely within the City of Norfolk, the Lafayette's watershed is home to over 40% of the city's residents and numerous businesses, institutions, and recreational opportunities. The Lafayette River and its shores provide habitat to numerous animal, fish, and plant species

The Lafayette River and the Elizabeth River are part of the Chesapeake

Bay watershed. The Chesapeake Bay extends from Havre de Grace, Maryland, to Virginia Beach, Virginia but the Chesapeake Bay watershed covers about 64,000 square miles in all of or parts of six states (Delaware, Maryland, New York, Pennsylvania, Virginia, and West Virginia) and the District of Columbia. Over 18 million people live in the Chesapeake Bay Watershed

Aquatic Life in the Lafayette River

a. The Northern Sea Robin (Prionotus carolinus) is an unusual-looking fish with a mottled body, wing-like fins and a flat, bony head. It visits the deep waters of the lower Chesapeake Bay from spring through early winter. It's a bottom feeder that uses its pelvic fins to find and feed on crabs, shrimp. and bivalves

b. The Blue Crab (Callinectes sapidus) is a swimming crustacean with bright blue claws and an olive green shell. It is one of the most recognizable species in the Chesapeake Bay and is commonly found in the shallower water's during warm weather, but hibernates in the deeper waters in

c. The Lined Seahorse (Hippocampus erectus) is a unique fish with a curled tail and horse-like head. It lives among bay grasses in the shallow waters of the middle and lower Chesapeake Bay. It can grow up to 6 inches in length & is covered by bony tes.

d. The Hard Clam (Mercenaria mercenaria) is the salty waters of the lower Chesapeake Bay. They are filter feeders, burying themselves in sand and using a bivalve with thick, ridged, rounded shells. It lives in

siphons to draw in water from above the surface.

from spring through autumn. They have a long, blue-black body marked by blue streaks. They are bottom-dwellers and feed on crabs, mussels, and e. The Black Sea Bass (Centropristis striata) is a striking, bluish-black fish that visits the lower Chesapeake

Process

The final contract for this project between the HRPDC and the Virginia Coastal Zone Management Program was fully executed on September 29, 2015.

- A determination from the Norfolk District of the U.S. Army Corps of Engineers that the project satisfied the terms and conditions of Regional Permit 18 (13-RP-18) was received on October 6, 2014.
- The city completed living shoreline improvements through a contractor in the first half of 2015.
- A determination of no historic properties affected was received from the Department of Historic Resources on June 3, 2015.
- The title opinion was obtained on June 17, 2015.
- The final 306a checklist was submitted to the Virginia Coastal Zone Management Program on July 9, 2015.
- A Memorandum of Agreement between the Hampton Roads Planning District Commission and the City of Norfolk was fully executed on August 11, 2016.
- The City of Norfolk issued a purchased order for the equipment and installations of the fabricated dock with gangway, piles, and concrete pad under one of the city's Indefinite Quantity Contracts on April 18, 2017.
- Demolition work on the site and construction and installation of the launch began on June 1, 2017, and was completed on June 30, 2017.
- Shoreline restoration work was completed in February 2017, with additional repair work completed in July 2017. Additional improvements will be made at a later date through separate funding.
- The new launch was scheduled to be officially opened to the public at a ribbon-cutting ceremony in October 2017.

Conclusion

The Lavalette Avenue Canoe/Kayak Launch and Fishing Dock project fulfill the Virginia Coastal Zone Management Program's goal to "improve public access to coastal waters and shorefront lands" in a manner that is "compatible with resource protection goals." By providing a dedicated access facility, the new launch will improve access to the water for fishing, crabbing, kayaking, canoeing, and sight-seeing. It will also help protect vegetation nearby shorelines by removing the need for fishermen to walk on the shore to access the water, which will help improve local water quality. In addition to improving water access for nearby residents and the city, the new facility will also improve access for visitors and residents of Hampton Roads and the Commonwealth to the Lafayette River. The funding received for this project from the Virginia Coastal Zone Management Program was a major contributor to its overall success.